

**Practice B**

For use with pages 8–13

Complete the conjecture based on the pattern in the examples.

- 1.
- Conjecture:*
- The product of two odd numbers is \_\_\_\_.

**EXAMPLES**

$3 \cdot 5 = 15$

$5 \cdot 7 = 35$

$9 \cdot 7 = 63$

$11 \cdot 9 = 99$

- 2.
- Conjecture:*
- The difference of any two even numbers is \_\_\_\_.

**EXAMPLES**

$26 - 4 = 22$

$16 - 12 = 4$

$6 - 10 = -4$

$14 - 8 = 6$

- 3.
- Conjecture:*
- The sum of three even numbers is \_\_\_\_.

**EXAMPLES**

$24 + 2 + 4 = 30$

$-4 + 12 + 10 = 18$

$8 + 10 + 6 = 24$

$14 + 0 + 16 = 30$

- 4.
- Conjecture:*
- The sum of an odd number of odd terms is \_\_\_\_.

**EXAMPLES**

$9 + 13 + 1 = 23$

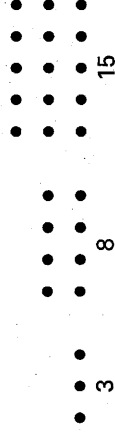
$3 + 5 + 9 + 7 + 1 = 25$

$1 + 1 + 3 = 5$

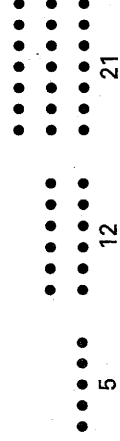
$3 + 7 + 9 + 5 + 11 + 13 + 5 = 53$

**In Exercises 5–8, show the conjecture is false by finding a counterexample.**

5. If the quotient of two numbers is positive, then both numbers must be positive.
6. If a four-sided shape has two sides the same length, then it must be a rectangle.
7. If a four-sided shape has opposite sides that are the same length, then it must be a square.
8. If the quotient of two numbers is an integer, then both numbers must be integers.
9. The dot patterns at the right form rectangles with a length that is two more than the width. Draw the next figure to find the next “rectangular” number.



10. Use the pattern of rectangular dot patterns at the right to find the next two “rectangular” numbers.



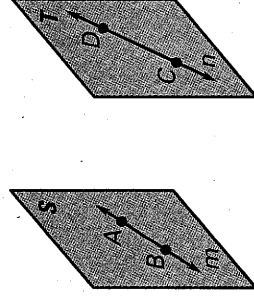
# Practice A

For use with pages 14–20

## Complete the statement.

- Through any two points there is exactly one \_\_\_\_.
- Through any three points not on a line there is exactly one \_\_\_\_.
- Points that lie on the same line are \_\_\_\_.
- Points that lie on the same plane are \_\_\_\_.

## Use the diagram at the right.



- Name two points.
- Name two lines.
- Name two planes.
- Name a point on line  $m$ .
- Name a point not on plane  $S$ .

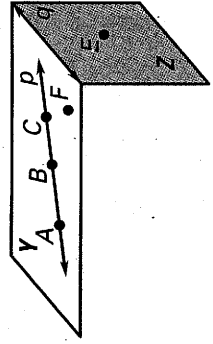
## In Exercises 10–12, use the diagrams.

- Draw  $\overleftrightarrow{EF}$  or  $\overleftrightarrow{FE}$ .
- Draw  $\overrightarrow{JK}$ .
- Draw  $\overline{GH}$  or  $\overline{HG}$ .

## Name three points that are collinear and three points that are not collinear.

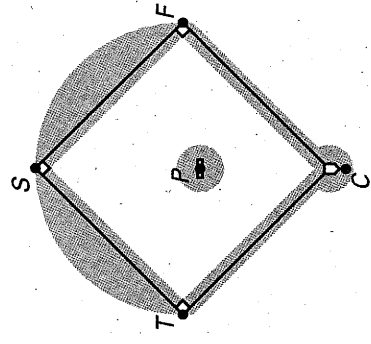
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## Use the diagram at the right.



- Name four points that are coplanar.
- Name two lines that are coplanar.

## Use the diagram at the right of a baseball diamond with points that correspond to a team's player positions.



- Name two line segments that contain point  $P$ .
- Name three points that are on the same line.